

## **CLARIFICATION OF NAVY ASBESTOS TRAINING REQUIREMENTS**

***1. Is it Navy policy that Navy employees be equally trained and accredited as contractors are supposed to be?***

Yes. In 1994, Congress promulgated the Asbestos in Schools Hazard Abatement Reauthorization Act (ASHARA). ASHARA modified the training requirements of the Asbestos Hazard Emergency Response Act (AHERA). The model accreditation plan (MAP) outlined in ASHARA requires that any personnel that work in public and commercial buildings attend accredited training. Accreditation requirements apply to inspectors, project designers, abatement workers and contractors/supervisors. Navy employees that conduct any of these activities must be trained and accredited in accordance with ASHARA. Furthermore, EPA recommends project monitor training to aid in the oversight of a contractor's performance of a response action (abatement) in a public or commercial building. State and local law should also be reviewed to determine if any other legal requirements exist.

***2. If we hire the contractors to do the design/abatement work, why do the ROICC/designers need to be trained to the same level?***

Asbestos Project Designer accreditation is required for personnel who specify the type of controls necessary to abate asbestos, per EPA's MAP. Navy activities need accredited project designers to develop local contracts for asbestos abatement or provide design support for emergency removals. The project designer is responsible for specifying the scope of work and editing the Naval Facilities Guide Specification, NFGS 13281, *Engineering Control of Asbestos Containing Materials*. NFGS 13281 requires project designer training to edit the document, per Federal regulations.

Although ROICC personnel do not need to be trained to the "asbestos abatement project designer" level, they do need to be trained to the "asbestos abatement contractor/supervisor" level to insure that they have knowledge in asbestos removal requirements and are competent/qualified persons, per the appropriate OSHA standard. This also gives ROICC personnel the knowledge and authority to stop work when necessary. The training gives individuals a background in asbestos work practices, how change orders would affect the project, and how site conditions impact the design.

***3. Do Navy signatures on drawings and approval of other submissions such as asbestos removal plans have any liability if the Navy employees are not trained to the same level? Some facility project personnel contend they are only accepting the submissions, not technically approving the contractor's work.***

Yes, through approval of safety and/or compliance-driven workplans, the Navy may be determined to be liable under some circumstances. Therefore, it is Navy policy that, for all Navy asbestos related facilities, the Navy reviewer/designer approver must be accredited as an Abatement Project Designer. The following describes in more detail why we need accredited personnel.

The contract specification should state that once the abatement plan is approved by the contracting office, it becomes enforceable as part of the contract documents. The abatement plan sets forth the containment set-up, removal procedures, and includes many other submittals, such as the disposal plan and air monitoring plans. We do not want "unauthorized approval" of these submittals. The pre-construction meeting should have representatives from the A/E firm, the abatement contractor, the ROICC, and the Asbestos Program Manager (APM) to review all submittals.

For in-house contracts, the EPA MAP accredited project designer (see discussion above) edits the specification and has approval of the plan and specifications. Other submittals should be coordinated between the ROICC and the APM for review.

Another reason for having accredited personnel prepare and accept submittals is to insure that the contract includes the most up-to-date information. Often, activities get an edited specification and do not verify if it contains concurrent regulations or requirements; out-of-date specifications are a common problem in the field. Trained and accredited personnel should have knowledge of changes to regulations or modifications in work practices.

## **DEPLOYED MEDICAL SURVEILLANCE**

By Debbie Davis

The Navy Environmental Health Center has been designated by Chief, Bureau of Medicine and Surgery, as the Medical Program Manager for Deployed Medical Surveillance. This includes Forward Deployed Medical Units (FD-PMUs) and casualty prevention and training for Chemical, Biological, Radiological and Environmental (CBRE) Hazards.

A home page will be established in the near future. If you currently have questions on these subjects, please address them to Commander D. Novak, Program Manager for Forward Deployed Medical Unit, at commercial: (757) 462-5403, DSN: 253-5403, e-mail: [novakd@nehc.med.navy.mil](mailto:novakd@nehc.med.navy.mil) or Captain C. Stein, Program Manager for Chemical, Biological, Radiological and Environmental Hazards, at commercial: (757) 462-5404, DSN: 253-5404, e-mail: [steinc@nehc.med.navy.mil](mailto:steinc@nehc.med.navy.mil)

## **NAVY OCCUPATIONAL EXPOSURE DATABASE**

By Leighton K. Turner, CIH

The Navy Occupational Exposure Database (NOED), which is maintained at NEHC, is a compilation of data collected by field industrial hygienists Navy-wide from 1984 to the present. All samples were not captured in the NOED but we are working toward that goal. Samples entered into the database have been quality checked for validity and complete record keeping. At

present, there are 49,241 time-weighted average (TWA) air sample results for chemical substances. Those TWA results are derived from 67,828 individual sample results.

Substantial information is available in the NOED that allows field IH personnel to benefit from samples collected by their colleagues throughout the Navy. We encourage field IHs to request information from the database via e-mail to [turnerl@nehc.med.navy.mil](mailto:turnerl@nehc.med.navy.mil). An example of a query might be the results of all toluene samples for a specific operation. The following table provides a list of the top 40 chemical substances that are in the NOED.

CAS NUMBER	STRESSOR	NUMBER OF SAMPLES
7439-92-1	LEAD	7597
TOTAL DUST	NUISANCE PARTICULATES, TOTAL DUST	3247
7440-47-3A	CHROMIUM METAL & INORGANIC CMPDS (As Cr)	2819
7440-43-9	CADMIUM AND COMPOUNDS (As Cd)	2572
12001-29-5B	ASBESTOS, NON-SPECIFIED	2003
1309-37-1B	IRON OXIDE DUST AND FUME (As Fe)	1634
7439-96-5	MANGANESE FUME (As Mn)	1204
108-88-3	TOLUENE (TOLUOL )	1146
7440-47-3F	CHROMIC ACID AND CHROMATES (As CrO <sub>3</sub> )	1098
7440-02-0E	NICKEL INSOLUBLE COMPOUNDS (As Ni)	1018
7440-50-8B	COPPER DUST AND MISTS (As Cu)	936
1309-37-1A	IRON OXIDE DUST AND FUME (As Fe <sub>2</sub> O <sub>3</sub> )	930
7440-47-3E	CHROMIUM (VI) INSOLUBLE CMPD NOC (As Cr)	914
1330-20-7	XYLENE (O-, -M-, P-ISOMERS)	898
7440-50-8A	COPPER FUME (As Cu)	884
WELDING FUME	WELDING FUMES (NOC), TOTAL PARTICULATE	833
630-08-0	CARBON MONOXIDE	756
7440-66-6	ZINC	714
75-09-2	METHYLENE CHLORIDE	626
78-93-3	METHYL ETHYL KETONE (2-BUTANONE)	585
8052-41-3	STODDARD SOLVENT	550
7440-02-0D	NICKEL METAL	547
7789-06-2	STRONTIUM CHROMATE (As Cr)	545
7440-48-4	COBALT, & INORGANIC COMPOUNDS (As Co)	542
7440-41-7	BERYLLIUM	525

1314-13-2A	ZINC OXIDE FUME (As ZnO)	463
7439-98-7B	MOLYBDENUM INSOLUBLE, TOTAL DUST (As Mo)	452
7429-90-5C	ALUMINUM WELDING FUMES (As Al)	438
7440-36-0	ANTIMONY	393
50-00-0	FORMALDEHYDE	390
822-06-0A	HEXAMETHYLENE DIISOCYANATE (HDI)	375
WOOD	WOOD DUST	360
8002-05-9	PETROLEUM DISTILLATES (NAPTHA)	327
7429-90-5A	ALUMINUM METAL, TOTAL DUST (As Al)	324
7440-24-6	STRONTIUM	272
7440-38-2C	ARSENIC, INORGANIC	270
123-86-4	n-BUTYL ACETATE	269
7440-22-4A	SILVER METAL DUST AND FUME (As Ag)	252
67-64-1	ACETONE	248
WOOD (S)	WOOD DUST, SOFT	248

## HAIL AND FAREWELL

By Debbie Davis

**Commander H. Donald Kennedy Jr.** retired in July 1998. He entered the Navy in 1978 as an Industrial Hygiene Officer at the Navy Environmental Health Center, Cincinnati, OH. From 1981 to 1984 Commander Kennedy served as the Staff Industrial Hygienist stationed at the Naval Medical Clinic, Portsmouth, NH. In 1984 he joined the staff of Naval Medical Command Northeast Region, Occupational Health and Preventive Medicine Detachment, and served as the Northeast Region Industrial Hygiene Manager and technical expert. His next assignment was Head, Occupational Health and Preventive Medicine at Naval Medical Command Southeast Region, Jacksonville, FL. In October 1989, he became the NAVOSH Department Head at the Navy Disease Vector Ecology and Control Center, Jacksonville, FL. In August 1992, Commander Kennedy was assigned as Special Projects Officer in the Environmental Programs Directorate, Navy Environmental Health Center, Norfolk, VA. In November 1994, Commander Kennedy became Director, Navy Inspector General Oversight Inspection Unit, Norfolk, VA until his retirement on 31 July 1998. Upon his retirement, Commander Kennedy accepted employment with the Logistics Management Institute in McClean, VA.

**Commander Michael J. DeJaeger** was assigned as Director, Navy Inspector General Oversight Inspection Unit, Norfolk, VA in August 1998. Commander DeJaeger Comes to us from the Navy Environmental and Preventive Medicine Unit 2, Norfolk, VA where he served as the Head of the Industrial Hygiene Department.

**Commander Paul Gillooly** recently reported to Navy Environmental Health Center as the Director, Environmental Programs. His previous assignment was Commanding Officer, Naval Occupational Safety and Health, and Environmental Training Center, Norfolk, VA. Other assignments include Bureau of Medicine and Surgery where he was dual hatted as the Head of Occupational Health, Safety and Environment, and the Industrial Hygiene Officer Community Specialty Leader. Commander Gillooly has a Master's degree and Ph.D. in Environmental Science from the University of Texas, Health Science Center in Houston.

**Lieutenant Barry Sass** reported to Navy Environmental Health Center as BUMED's Environmental Engineer, Claimancy Compliance Department, Environmental Programs Directorate. He received his master's degree in Engineering from Old Dominion University, Norfolk, VA.

**Lieutenant Raceli C. Hulett** has been assigned to the USS John F. Kennedy (CV 67), home ported in Mayport, FL. Her commercial number is (904) 274-5826, DSN: 968-5826, and e-mail: [huletrc@kennedy.navy.mil](mailto:huletrc@kennedy.navy.mil)

**Lieutenant Commander Amjad M. Qureshi** has been temporarily assigned to Commander, Submarine Forces Atlantic as Force Industrial Hygiene Officer. He can be reached at commercial: (757) 836-1403, or e-mail: [n451a@hq.sublant.navy.mil](mailto:n451a@hq.sublant.navy.mil)

**Lieutenant Commander Mike Macinski** comes to Navy Environmental Health Center from the Naval Hospital, Beaufort, South Carolina. He is currently the Industrial Hygiene Officer for the Operational Forces Department, Industrial Hygiene Directorate. His commercial number is (757) 462-5529, DSN: 253-5529, or e-mail: [macinskim@nehc.med.navy.mil](mailto:macinskim@nehc.med.navy.mil)

## **INDUSTRIAL HYGIENE FIELD OPERATIONS MANUAL**

**By Leighton K. Turner, CIH**

In response to a deluge of queries, the Navy Environmental Health Center's Industrial Hygiene Field Operations Manual will be available on the NEHC website <http://www-nehc.med.navy.mil> on March 1, 1999. The staff is completing the revision of the Sampling Strategies chapter to include the new information in the AIHA publication "A Strategy for Assessing and Managing Occupational Exposures 2<sup>nd</sup> edition. Inclusion of material from this new publication, which became available in late 1998, was considered worth waiting for since it provides a scientifically sound basis for reducing the number of samples required to make good decisions about exposures. Navy IHs are encouraged to add the AIHA book to their library and study it closely.

## **INDUSTRIAL HYGIENE INFORMATION MANAGEMENT SYSTEM IHIMS99**

**By Dennis Smoot, CIH**

In 1995, the Navy Occupational Safety and Health (NAVOSH) Quality Council established the Navy Industrial Hygiene Automation Process Action Team to identify Navy Industrial Hygiene (IH) automation specifications in the form of data elements, processes, relationships, and output. The Management Systems Support Division at Portsmouth Naval Shipyard, Portsmouth, NH, was

tasked by the Chief of Naval Operations (N45) and the NAVOSH Quality Council to manage the consolidation of three existing Navy systems into a single, standard set of software that will meet these specifications. The systems to be consolidated were the Industrial Hygiene Information Management System (IHIMS), the Industrial Hygiene Module of the Occupational Safety and Health Record Keeping System, and the Task Related Information Management System. The actual consolidation of the software is being accomplished by Naval Computer and Telecommunications Station, Washington, DC, and their sub-contractors, using the Delphi 3.0 client/server (32 bit version) application development tool, and Microsoft Access Relational Database Management System.

The new software, to be known as IHIMS99, is designed to assist Navy Industrial Hygienists in automating key IH functions, and will replace obsolete IH legacy systems being used throughout the Navy. It is an interim program, meant to fill the gap between current legacy systems and the Defense Occupational Health Readiness System, scheduled for implementation sometime in or about the year 2001. IHIMS99's objective is to provide the Navy IH with tools needed to manage both the qualitative and quantitative aspects of a comprehensive Navy IH program. This includes, among other things, performing IH surveys; making personal protective equipment recommendations; making medical surveillance recommendations; creating workplace monitoring plans; and tracking, analyzing and processing all types of IH sampling data. The main goal of the program is to enable the systematic identification, evaluation, and control of recognized stressors throughout Navy workplaces. Once implemented, it will eliminate redundant effort, increase time for fieldwork, and enhance program quality control.

IHIMS99 is currently undergoing beta testing at eight Navy sites. It will be released for general use sometime early in 1999. Requirements to run IHIMS99 include:

<b>MINIMUM</b>	<b>PREFERRED</b>
Pentium 66 MHz PC	Pentium 166 MHz (or faster) PC
16 MB RAM	32 MB RAM
15 MB Free Hard Drive Space	15 MB Free Hard Drive Space
Laser Printer, 4 ppm	Laser Printer, 8 ppm, 2+ MB RAM
VGA Video, 512 KB RAM	SVGA Video, 2+ MB RAM
Mouse	Mouse
Win95 Operating System	WinNT Operating System

## **ISOCYANATE INTERIM GUIDANCE ADDENDUM**

By John E. Bishop, CIH, MS

Ref: (a) BUMED ltr 6290 Ser 2421/97U24055 of 25 Apr 97

(b) 29 CFR 1910.134

(c) OSHA CPL 2-0.120 of 25 Sep 98

In reference (a) we discussed the problems with measuring isocyanates in air from both chemical and physical perspectives. If we want to measure the total reactive isocyanate groups, the groups will come from the monomers (if present) and the polymeric prepolymers or partially-reacted isocyanate materials. In non-spray operations, the main contribution of NCO groups comes from the monomers, due to the higher vapor pressures and the higher "equivalent" NCO values (mass of NCO groups per molecular weight).

The analysis of prepolymers and partially reacted isocyanates pose problems using current methods. Also, pure standards have not been developed for all polymeric and partially reacted isocyanate products.

Impingers are often used for the assessment of aerosols with the ability to react with the derivitizing reagents. Impinger efficiency for collection of isocyanates depends on flow rate, jet diameter and strike distance. At 1-2 liters per minute (lpm), the sampling efficiency for methylene bisphenyl isocyanate (MDI) aerosols falls off for aerosols having a mass median diameter of less than 1  $\mu\text{m}$ . Thus, air sampling using impingers has been shown to underestimate MDI concentrations where the general aerosol sizes are in the range of 0.1 to 1  $\mu\text{m}$ .

Because of the difficulties in sampling with impingers and the difficulty in applying impinger results to unknown standards, NAVENVIRHLTHCEN developed interim guidance for evaluating spray application of the prepolymer isocyanates using a total aerosol gravimetric analysis. The recommendations, based on referenced studies and documents were intended to be prudent actions for inhalation and dermal exposure potentials while considering the physical form of the exposure and the ability to quantitatively assess risk. The total airborne aerosol results can be compared to the interim exposure standard for polyisocyanates (interim guidance until the appropriate sampling method and airborne standard is determined): 1  $\text{mg}/\text{m}^3$  STEL, 0.5  $\text{mg}/\text{m}^3$  TWA. This is a conservative estimate of the mass of polyisocyanates, assuming that all of the aerosol is the prepolymer.

Using the NIOSH Method 0500 for "Particulates Not Otherwise Regulated, Total," the working range for the sampling and analytical method is 100 to 2000 micrograms per sample. Evaluating the workplace for aerosol application of prepolymeric isocyanates for comparison to the interim STEL would require sampling at a rate greater than 6 lpm to meet the 15 minute sampling time. This is not always feasible.

At this time, we recommend you assess the spray application of the prepolymeric isocyanate coatings by evaluating worker exposure to total aerosol as a time weighted average with a minimum sampling volume of 300 - 400 liters. This relates to a sampling time of 150 - 200 minutes at a rate of 2 lpm.

We are currently working with the Air Force in evaluating the inhalable aerosol fraction of worker exposure. They have performed extensive sampling using a modified three-piece cassette. They modify the inlet cap of the cassette by drilling a 15-mm hole to better represent the inhalable mass fraction, which is the portion of the aerosol distribution the worker will inhale into his/her respiratory system. The sampler is mounted in a cassette holder designed to hold the cassette horizontally to the torso. This configuration reduces particulate sampling bias due to sampler orientation.

We are also looking at an effective change schedule for air purifying respirators for use during polyurethane spray applications based on the new regulations by reference (b). This is supported by reference (c).

For a complete discussion on the prepolymeric isocyanate issue, please download and consult the interim guidance at <ftp://www-nehc.med.navy.mil/ih/>. Click on isocyan.exe. This will download a self executable file containing the interim guidance in Word Perfect 5.1 format. For further information, please contact Mr. John Bishop, CIH, NAVENVIRHLTHCEN Industrial Hygiene Directorate, at (757) 462-5518, DSN 253-5518 or e-mail [bishopj@nehc.med.navy.mil](mailto:bishopj@nehc.med.navy.mil).

## **METRIC CONVERSION FOR SURFACE LEAD DUST LOADING**

By John Bishop, CIH, MS

The Metric Conversion Act of 1975, as amended, establishes the modern metric system (System International or SI) as the preferred system of measurement in the United States. It requires that, to the extent feasible, the metric system be used in all federal procurement and business-related activities.

Surface lead dust loading as measured through wipe sampling has been reported in and related to criteria levels in mixed units (micrograms per square foot). The following matrix can assist you in the conversion of surface lead dust loading values to the metric system:

### **Surface Lead Dust Loading Conversions**

#### **Criteria Levels**

$\mu\text{g}/\text{ft}^2$	$\mu\text{g}/\text{m}^2$	$\mu\text{g}/100\text{cm}^2$
50	538	5.38
100	1076	10.76
200	2153	21.53
250	2691	26.91
500	5382	53.82
800	8611	86.11

#### **Conversions**

Take the value in	multiply by	divide by	to get
$\mu\text{g}/\text{ft}^2$	-	0.0929	$\mu\text{g}/\text{m}^2$
$\mu\text{g}/\text{ft}^2$	-	9.29	$\mu\text{g}/100\text{cm}^2$
$\mu\text{g}/\text{m}^2$	0.0929	-	$\mu\text{g}/\text{ft}^2$
$\mu\text{g}/100\text{cm}^2$	9.29	-	$\mu\text{g}/\text{ft}^2$

## **METALWORKING FLUIDS**

By Harold Zedd

The National Institute for Occupational Safety and Health has issued a criteria document (98-102) for metalworking fluids entitled "Criteria for a Recommended Standard Occupational Exposure to Metalworking Fluids." This can be found at [www.cdc.gov/niosh/98-102.html](http://www.cdc.gov/niosh/98-102.html). Download 98-102.PDF, a self-extracting file. The OSHA text sheet can be downloaded at [www.osha.gov/oshinfo/priorities/metal.html](http://www.osha.gov/oshinfo/priorities/metal.html).

## **OSHA RESPIRATOR STANDARD**

By David Spelce, MS, CIH

The new OSHA Standard, 29 CFR 1910.134, has provided many answers to the concerns of the respirator community. However, it has also raised many questions. OSHA is providing guidance to clear up gray areas of the standard in the following three publications which can be downloaded from the OSHA website at <http://www.osha.gov/wutsnew.html>:

Questions and Answers on THE RESPIRATORY PROTECTION STANDARD, of 3 August 98;

OSHA CPL 2-120, INSPECTION PROCEDURES FOR THE RESPIRATORY PROTECTION STANDARD, of 25 September 98;

SMALL ENTITY COMPLIANCE GUIDE FOR THE REVISED RESPIRATORY PROTECTION STANDARD, of 30 September 98.

Remember to consult Chapter 15 of OPNAVINST 5100.23 Series for Navy policy on respiratory protection.

## **ACGIH TLVs/BEIs**

The American Conference of Governmental Industrial Hygienist (ACGIH) 1998 Threshold Limit Values (TLVs) and Biological Exposure Indices (BEIs) are available in booklet form, diskette (in WordPerfect 6.1 format), and CD-ROM. The 1998 edition contains 700 chemical substances and physical agents and BEI recommendations for over 85 chemical substances.

Ordering information is as follows:

Booklet (Publication #0028)	\$19.50
Diskette (Publication #0028D)	\$249.00
CD-ROM (Publication #9801)	\$795.00

Contact the ACGIH publications department at:

E-mail	<a href="mailto:pubs@acgi.org">pubs@acgi.org</a>
Internet	<a href="http://www.acgi.org">http://www.acgi.org</a>
Phone	(513) 742-2020

FAX  
Mailing Address

(513) 742-3355  
ACGIH  
1330 Kemper Meadow Drive  
Cincinnati, OH 45240-1634

\*Visit the ACGIH web site at <http://www.acgih.org/catalog>

## **TRAINING**

### **INDUSTRIAL HYGIENE TECHNIQUES/WORKPLACE MONITORING COURSE**

The Navy Environmental Health Center is teaching the Work Place Monitor/Industrial Hygiene Techniques Course in San Diego, CA, 2-12 Feb 99. The instructors for the course are Dick Johnson and Debbie Davis. This course is filled.

The schedule of courses to be held in Norfolk for the rest of 1999 is:

23 Feb - 5 Mar  
11 - 21 May  
17 - 27 Aug  
26 Oct - 5 Nov

There are seats available in all classes. This course is open to, and highly recommended for junior industrial hygienists, industrial hygiene officers, industrial hygiene technicians, and workplace monitors. This is also one of the qualifying courses for those seeking the safety petty officer NEC.

The course consists of nine busy days of classroom theory, heavily weighted with industrial hygiene math. Anyone versed in the fundamentals of elementary math should not have any problems, however, we will send a short math review quiz with the quota confirmation letter.

There are several ways to request a quota for the course: 1.) Use the enrollment form on the NEHC website at [www.nehc.med.navy.mil](http://www.nehc.med.navy.mil) 2.) Send an e-mail to [johnsonr@nehc.med.navy.mil](mailto:johnsonr@nehc.med.navy.mil) 3.) Mail a request letter 4.) FAX a request to Attention: R. Johnson at (757) 445-7330. For each student quota requested, please provide his/her name, his/her rank/rate or civilian grade level, date of the class desired, the return address of the command, and a commercial phone number.

If you would like further information, please contact Dick Johnson at com: (757) 462-5519, DSN 256-5519 or e-mail: [johnsonr@nehc.med.navy.mil](mailto:johnsonr@nehc.med.navy.mil)

## **3M/NIHS**

Two courses are being offered by 3M/NIHS: Respiratory Protection and Current Topics in Respiratory Protection. These courses are available at a number of locations. 3M states that respirators and equipment from all major manufacturers are used in the classroom and workshop sessions. Professional development credits are available. For additional information about dates,

locations, payment methods, and registration, please call 1-800-659-0151, ext 275.

## **NORTH CAROLINA OCCUPATIONAL SAFETY AND HEALTH EDUCATION AND RESEARCH CENTER/UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL**

The 19th Annual Occupational Safety and Health Winter Institute is scheduled for 25-29 Jan 99 in St Petersburg Beach, FL. Twenty eight courses will be taught. American Board of Industrial Hygiene (ABIH) and Board of Certified Safety Professionals (BCSP) certification points have been awarded for most courses. The North Carolina Occupational Safety and Health Education and Research Center offers both Industrial Hygiene Technician and Safety Technician Certificate Programs. A complete schedule of courses are available on their homepage at <http://www.sph.unc.edu/osherc/>. For additional information call, 1-888-235-3320 or (919) 962-2101.

### **IH INSTRUMENTS AND Y2K**

**By Leighton K. Turner, CIH**

Although most of the Y2K hype has been about computers, IH managers are advised to determine if their direct reading instruments, electronic calibrators, electronic sampling pumps, noise dosimeters, etc. are Y2K compliant. These instruments store time and date information to time-stamp data and decide when to turn on and off so they may encounter Y2K problems. Managers are highly encouraged to contact the manufacturers of such devices to determine if there is a problem. Although older equipment probably has the highest potential for problems, some recent purchases may also be susceptible to the Y2K bug.

Some manufacturers have established web pages on their website to assist customers in determining whether the instruments they own are Y2K compliant. One example is Metrosonics, Inc. which can be reached at <http://www.metrosonics.com/yr2kgpd.html>. As NEHC identifies such web pages we will post them. Field personnel are encouraged to submit vendors' Y2K web pages by e-mail to [turnerl@nehc.med.navy.mil](mailto:turnerl@nehc.med.navy.mil) for posting on the NEHC website.